Elijah Cole

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in elicole ⌨ elijahcole

Areas of Specialization

Deep Learning · Computer Vision · Representation Learning · Benchmark Design · AI for Science

Experience

Machine Learning Research Scientist	Altos Labs	2023 –
Graduate Research Assistant	California Institute of Technology	2017 – 2023
Research Intern	Google AI	2020 – 2022
Research Intern	Microsoft Research	2019
Research Intern	Air Force Research Laboratory	2017 – 2018

Education

Ph.D.	**California Institute of Technology**	2023
	Department of Computing and Mathematical Sciences	
	Thesis Committee: Pietro Perona (advisor), Serge Belongie, Katie Bouman, Yisong Yue	
B.S.E.	**Duke University**	2017
	Double Major in Electrical & Computer Engineering, Mathematics	

Selected Awards

Amori Doctoral Prize	California Institute of Technology	*2023*
Resnick Sustainability Institute Scholar	California Institute of Technology	*2021*
NSF Graduate Research Fellowship	National Science Foundation	*2019*
Charles Earnest Seager Memorial Award	Duke University	*2017*

Selected Publications

CVPR '24	Lang, Snæbjarnarson, Cole et al. *From Coarse to Fine-Grained Open-Set Recognition.*
NeurIPS '23	Lange, Cole et al. *Active Learning-Based Species Range Estimation.*
ICML '23	Cole et al. *Spatial Implicit Neural Representations for Global-Scale Species Mapping.*
ECCV '22	Cole et al. *On Label Granularity and Object Localization.*
CVPR '22	Cole et al. *When Does Contrastive Visual Representation Learning Work?*
CVPR '21	Cole et al. *Multi-Label Learning from Single Positive Labels.*
CVPR '21	Van Horn, Cole et al. *Benchmarking Representation Learning for Natural World Image Collections.*
ICCV '19	Mac Aodha, Cole et al. *Presence-Only Geographical Priors for Fine-Grained Image Classification.*

Selected Presentations

Self-Supervised Learning in the Era of Large Models	California Institute of Technology
Learning from Real-World Data	Cornell University
Computer Vision for Expert Tasks	Allen Institute for Artificial Intelligence
Self-Supervised Learning Beyond ImageNet	Santa Fe Institute
Computer Vision for Biodiversity Monitoring and Conservation	Yale University

Selected Service

Primary Organizer	CVPR Workshop on Fine-Grained Visual Categorization (2023).
Publications Chair	CVPR Workshop on Fine-Grained Visual Categorization (2021, 2022).
Co-Organizer	Resnick Institute Summer Workshop on Computer Vision for Ecology (2022), Geo-LifeCLEF Competition (2020, 2021, 2022), iWildCam Competition (2020, 2021).
Reviewer	ICLR, CVPR, ICML, NeurIPS, WACV, ICCV. Top reviewer awards from CVPR, ICLR, ICML, and NeurIPS.